BINARY™

MOIP SETUP GUIDE
Rev:190924-1130

B-900-MOIP-4K-CTRL 900 SERIES 4K MOIP CONTROLLER

1. OVERVIEW

This guide will help you configure IGMP and multicast on an S3L-24P switch for use with SnapAV MoIP Video Switches. The first part of the document describes the key steps required while the end explains the different settings required in a multi-switch topology. The S3L-24P does not support switch "stacking" for configuration management so configuration is required on each switch individually.

As you plan your MoIP installation, be aware of the potential bandwidth utilization from the topology you have laid out. The SFP+ Uplinks on the S3L-24P support 10Gbps each, so be aware of the number of transmitter bandwidth utilization and where each video stream can potentially travel through the network.

If you wish to run the MoIP system on its own VLAN, follow these steps to create a VLAN with IP Interface on the S3L-24P. More detailed steps on creating and managing VLANs can be found in the companion document S3 Series Switches - Creating VLANs. If you intend to only use VLAN 1, skip to Step 2 and replace any mention of "VLAN 10" with VLAN 1 for your configuration.

If you have any questions about serial control after reading this document, please contact SnapAV Technical Support.

Contacting Technical Support

Phone: (866) 838-5052 (704) 909-5229

Email: TechSupport@SnapAV.com

2.BEFORE BEGINNING

Make sure the following items are close at hand for setup:

- B-900-MOIP 4K-CTRL
- Pakedge S3L-24P Switch

3. FIRMWARE VERSION

The information in this document applies to switchers with firmware version 1.0.0 or higher. If your firmware is below 1.0.0, please update to the latest version.

4. CONFIGURING THE S3L-24P

1. **Add the VLAN to be used.**

   The default login for the S3L-24P is at the IP address 192.168.1.205.

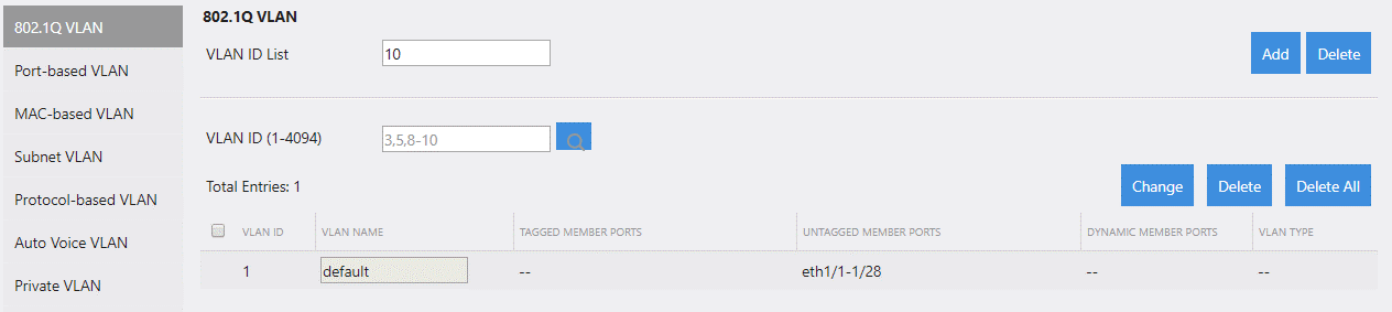
   Username = pakedge

   Password = pakedges

   The VLAN MUST be created first before the interface can be modified. For this example, we will be using VLAN 10.

   Navigate to **Configure > L2 Switching > 802.11Q VLAN**

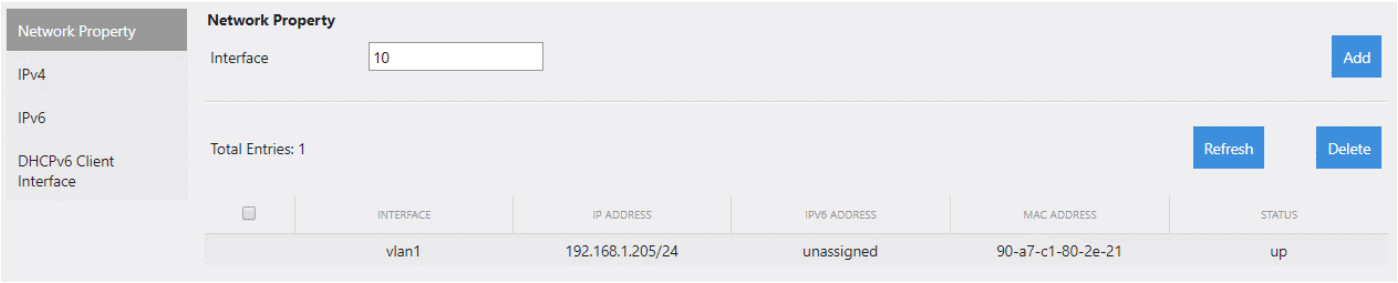
   In the **VLAN ID List** field, type "10", then click **Add.**



   In the S3L-24P, it is required to create an IP interface for the VLAN where IGMP Snooping will be configured (MoIP VLAN).

   Navigate to **Administration > Management > Network Interface > Network Property** page.

   In the **Interface** field, type "vlan10", then click **Add.**



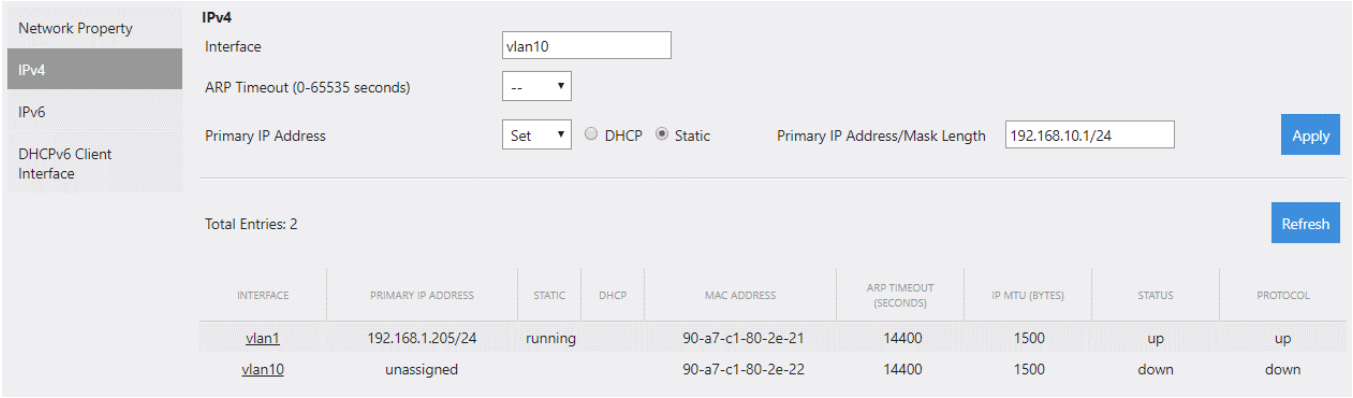
   Next, click on **IPv4** on the left menu and type "vlan10" in the interface field.

   Click the drop-down menu for **Primary IP Address** and select **Set**. Then select the **Static** radio button that appears.

   In the **Primary IP/Mask Length** field that appears, assign an IP address for the switch to use on VLAN 10.

   Use the following format for the IP address: ex. 192.168.10.1/24. The /24 at the end represents a 255.255.255.0 subnet mask.

   Click **Apply.** You'll see the assigned IP populate in the list below.



2. **Enable/Configure IGMP Snooping**

   Navigate to **Configure > Application > IGMP Snooping.**

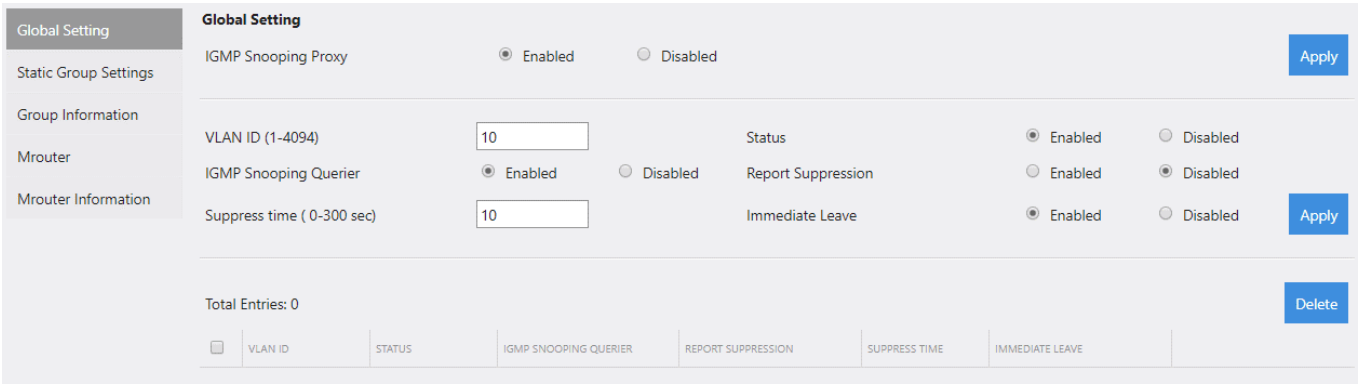
   In the **VLAN ID (1-4094)** field, type "10" to indicate the VLAN you are configuring for.

   Set **IGMP Snooping Querier** to **Enabled.**

   Set **Status** to **Enabled.**

   Set **Immediate Leave** to **Enabled.**

   Click **Apply** on the right-hand side.



Verify: If you navigate to **Configure > Application > IGMP > IGMP Settings**

You'll see a list of IGMP entries at the bottom of the page.

Find the entry for VLAN 10.

Ensure the **Version** column for this entry is set to **V2.**

3. **Filter Unregistered Multicast**

   Navigate to **Configure > L2 Switching > Multicast Filtering.**

   Set **Filtering Mode** to **Filter Unregistered**.

   Set **Interface** to vlan10.

   Click **Add**.

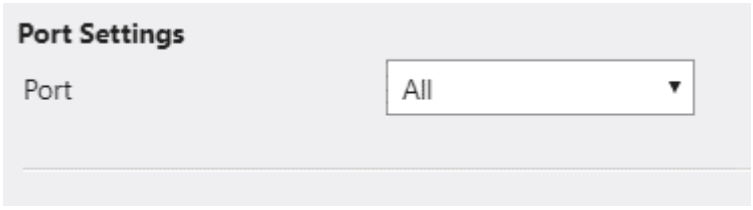
   This will prevent unregistered multicast traffic from being forwarded throughout the MoIP VLAN.

   Note: If you add any other devices on to the MoIP VLAN, multicast communication for these devices may be disrupted due to the settings applied to allow the MoIP system to operate at optimal levels. It is recommended to leave all other devices off the MoIP VLAN. (ex. Discovery protocols commonly use multicast for communication.)

4. **Enable Jump Frames**

   Navigate to **Administration > Management > Port > Port Settings**.

   Make sure the **Ports** field is set to **All.**



   Find the **Maximum Receive Frame Size** field.

   Set this field to **9216**, then click **Apply**.

Verify the settings have been applied to all ports by scrolling to the bottom of the page. You'll see a list of ports with a **Maximum Receive Frame Size** column for each.

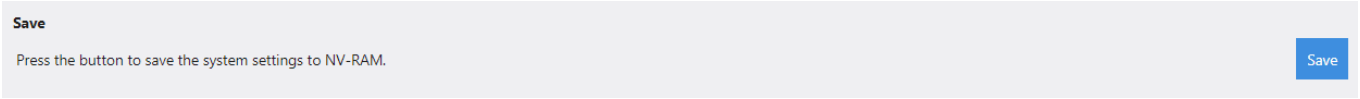
PORT	STATE	SPEED	DUPLEX	FLOW CONTROL	MAXIMUM RECEIVE FRAME SIZE
eth1/1	Enabled	AUTO	AUTO	None	9216
eth1/2	Enabled	AUTO	AUTO	None	9216
eth1/3	Enabled	AUTO	AUTO	None	9216
eth1/4	Enabled	AUTO	AUTO	None	9216
eth1/5	Enabled	AUTO	AUTO	None	9216

5. **Save!**

   IMPORTANT

   The configuration **MUST** be saved. If you do not save the configuration after applying these settings, the settings will clear once the switch is powered down.

   Navigate to **Maintenance > Save**.



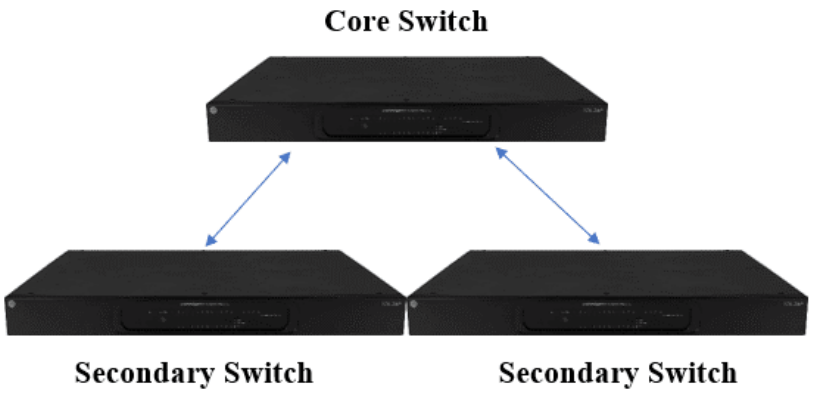
Your MoIP configuration on the S3L-24P is complete.

5. FAQ

Are there multiple switches in the MoIP network topology?

If you have multiple S3Ls with MoIP devices connected, you will follow **ALL** of steps as explained above to configure each switch. However, a minor (**but important**) change to the IGMP Snooping configuration is required depending on where the switch is in the topology.

The recommended switch topology is to have a Core switch, with Secondary switches connected below it.



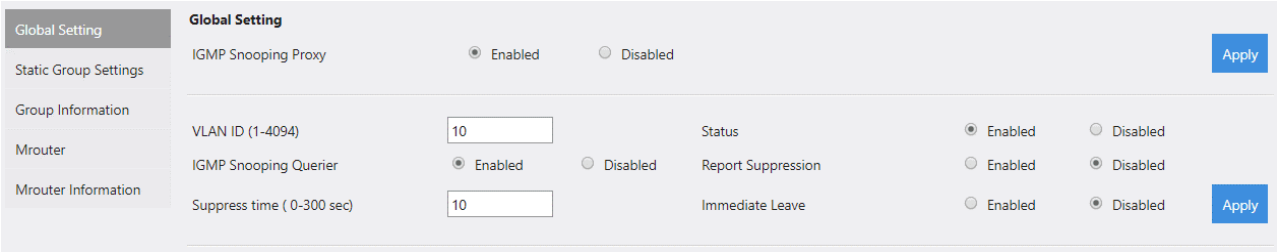
When you have this type of topology, the following changes must be made:

Navigate to **Configure > Application > IGMP Snooping.**

Core Switch

Set **IGMP Snooping Querier** to **Enabled.**

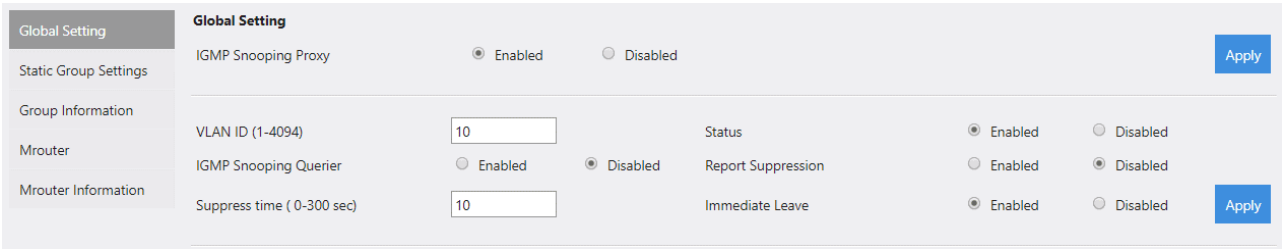
Set **Immediate Leave** to **Disabled.**



Secondary Switches

Set **IGMP Snooping Querier** to **Disabled.**

Set **Immediate Leave** to **Enabled.**



11. CONTACT TECH SUPPORT

Need Help? Contact Tech Support!

If you need further clarification, please call tech support at **800.838.5052**, or email **support@snapav.com**. For other information, instructional videos, support documentation, or ideas, visit our website and view your item's product page at **www.snapav.com**.

Phone: (866) 838-5052

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